refiners, braziers, and other artists. Here the Plumbago is mixed with a portion of infusible clay, which prevents its being burnt up in the furnace. Crucibles thus made, have many advantages over those made simply of clay. They stand the fire better, are smoother and neater, and do not permit what is melted in them to cool as soon. Hence they are much employed in the arts, and probably will be more so when the price of Black Lead becomes reduced. Those of the best quality are made in Holland. A few were manufactured in Philadelphia during the late war; but they were found so far inferior to the Dutch crucibles, that, on the return of peace, the business was given up.

A third mode in which Black Lead may be usefully employed is in the composition of *friction paste.* This was patented in England under the name of the ANTI-ATTRITION PASTE, but it may be easily formed according to the following recipe: "Mix one pound of hog's lard with half a pound of Black Lead; stir them well together, while melting over a slow fire. If the axles and bushes of the wheels be true, a carriage may safely be run one hundred and fifty miles, with once using the above composition," (Parkes' Chemical Essays, II. 343.) The Black Lead should be added to the lard in powder; or it should be previously ground in a mortar with a small quantity of lard. This will be found a useful preparation for lubricating machinery.

A compound somewhat similar to the above, is used to coat over articles of cast iron, as stoves, fire-places, and the like, in order to give them an agreeable surface, and to keep them from rusting. Eight pounds of lard are melted with a little water, and four ounces of camphor is added. While warm, as much Black Lead is added in fine powder as will give the whole a leaden color. The article to be coated is made as warm as the hand can bear to touch, the paste is rubbed on, and when dry it is wiped clean and presents a smooth polished surface, (Rees' Cyclopedia, Art. *Plumbago.*) This is an ancient recipe; probably more simple ones are now in use. Indeed, the powder of Black Lead stired up with milk, makes a very proper application for rough iron surfaces.

It would greatly increase the demand for this article, if it could be introduced into common use for *paint.* It composes, when ground with oil, a paint of good body, and peculiarly excellent for the roofs of houses. Its smoothness and its greasy quality, which prevent its spreading well, and render it less suitable for delicate painting, are well fitted to turn off the rain, and it forms a coating for roofs both durable and handsome. The Black Lead ground in oil, which is usually found in the market, is of a quality very inferior to the paint which would be formed by our Plumbago; it is frequently nothing more than a certain kind of coal. It seems to